

Remarks/Arguments

Applicants have received and carefully reviewed the Office Action of the Examiner mailed August 10, 2009. Currently, claims 1, 5-8, and 11-19 remain pending. Claims 1, 5-8, and 11-19 have been rejected. Favorable consideration of the following remarks is respectfully requested.

Claim Rejections – 35 USC § 103

Claims 1, 5, 7-8, 11-17, and 19 were rejected under 35 U.S.C. 103(a) as being unpatentable over Acciai et al. (U.S. Patent No. 5,855,802), hereinafter Acciai, in view of Pacetti et al. (U.S. Patent No. 6,695,920), hereinafter Pacetti, McCoy (U.S. Published Patent Application No. 2003/0234243), and references identified as Applicant's Admitted Prior Art (AAPA). After careful review, Applicant must respectfully traverse this rejection.

"All words in a claim must be considered in judging the patentability of that claim against the prior art." *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970). (MPEP § 2143.03).

The Examiner has acknowledged numerous deficiencies of the Acciai reference, among which are a failure to mount all elements to one table; the coupling of the linear and rotary motors; the presence of guides; the workpiece below the motor(s); direct cutting using the laser; and the use of a coolant. Attention is drawn to the fact that the Examiner has explicitly acknowledged that Acciai does not disclose direct cutting. The Examiner has asserted that the coating apparatus of Pacetti discloses a stent coupled to a rotational motor (24), described by Pacetti as a rotational motor, and another motor (28), described by Pacetti as a linear motor, an arrangement depicted in Figure 2 as positioning both the rotary motor and the stent above the linear motor. The gear members (22) and rail (30) are said to provide guide members. Instead, the gears of Pacetti appear to be mere support structures which transmit torque to the stent and engage in minimal contact therewith. (Col. 3, lines 15-26.) Thus they do not appear to provide guides which position the stent and, since Pacetti does not cut the stent, do not appear to provide the pre-cut guide and post-cut guide recited in independent claim 1. Since the gears of

Pacetti do not appear to “assist in the holding and maintaining position of workpiece 16 relative to laser 112”, they do not appear to be capable of providing the function of either a pre-cut guide or a post-cut guide as the function of the guides is defined in the specification. The gears (22) of Pacetti do not appear to be capable of positioning the stent for at least the reason that Pacetti indicates that the stent may slide off of the mounting assembly in the absence of barriers (36) positioned well beyond the ends of the stent in Fig. 5 and thus the gears do not appear to be coupled to the stent to hold and maintain the position thereof.

Since Pacetti is a coating apparatus rather than a cutting apparatus, Pacetti does not appear to be capable of overcoming the acknowledged deficiencies of Acciai with respect to direct cutting with a laser and the use of a coolant. The motors and gear members of Pacetti appear to float in midair free of attachment to a base or other portion of the apparatus in the drawings and the specification. Thus Pacetti does not appear to disclose a base, much less a single base, or a base having a laser cutting system attached to a first surface thereof.

Further, were the support system of Pacetti to be substituted for the means (34) for rotatably supporting the tubular member (32) of Acciai, it would necessarily appear to interpose shaft (20) of Pacetti between the lower lens (58) mounted on second arm (50) that extends along the longitudinal axis of the tubular member thereby preventing beam (62) from being focused onto the “the respective adjacently disposed cylindrical surface of the tubular member 32” above the shaft of Pacetti in the proposed combination. This would appear to render the apparatus of Acciai unsuited for its intended purpose of exposing a light sensitive pattern in a coating on the stent by impinging laser beams (60, 62) onto the respective adjacently aligned cylindrical surfaces of the tubular member (32). (See MPEP § 2143.01 Part V.) Further, replacing Acciai’s system for exposing a light-sensitive coating with a system which directly cuts the work piece would impermissibly alter the principle of operation of Acciai. (See MPEP § 2143.01 Part VI.)

The McCoy reference has been advanced as supplying a multi-axis laser apparatus for the fine cutting of tubing and a water system to remove debris falling into the interior of the cut tube and to push portions of the cut tube into a parts catcher. Acciai in view of Pacetti fails to disclose numerous elements of the pending independent claims

1 and 13. Since the apparatus of Acciai does not appear to cut the tubing or to generate debris during the exposure of a photoresist coating, there does not appear to be a motivation to combine the references. Further, the proposed substitution of direct cutting of the tube for exposure of a photoresist followed by developing the photoresist and etching the tube would appear to impermissibly alter the principle of operation of Acciai. The mere existence of the laser cutting apparatus of McCoy or of Applicants' admitted prior art is insufficient to overcome the absence of structural elements in the combined disclosure of Acciai and Pacetti. As noted above, the replacement of the system for exposing a light-sensitive coating to be followed by developing, etching, and deburring steps with any manner of cutting apparatus, whether that of McCoy or Applicants' admitted prior art, would appear to impermissibly alter the operating principle of Acciai. Applicants respectfully request that the rejections of independent claims 1 and 13 be withdrawn.

If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). (MPEP 2143.03)

Accordingly claims 5, 7-8, 11, 12, 14-17, and 19, which depend from nonobvious independent claims 1 and 13 respectively, also are believed to be nonobvious and Applicants respectfully request that the rejections be withdrawn.

Claims 1, 5, 7-8, 11-17, and 19 were rejected under 35 U.S.C. 103(a) as being unpatentable over Acciai in view of Pacetti, McCoy, and Kranz (U.S. Patent No. 6,197,047). After careful review, Applicant must respectfully traverse this rejection.

As discussed above in detail, Acciai in view of Pacetti and McCoy, does not appear to provide all elements of pending independent claims 1 and 13. The addition of any cutting means to replace the system for exposing a light sensitive coating found in Acciai would impermissibly alter the operating principle of Acciai which relies upon the laser exposure of a photoresist. The addition of "a cutting jet of water preferably a laser" of Kranz to the disclosures of Acciai and Pacetti or even Acciai, Pacetti, and McCoy does not appear to overcome the structural deficiencies of Acciai and Pacetti or to avoid the

impermissible alteration of the operating principle of Acciai. It is unclear what is meant by a laser jet of water. Given the failure of the combined disclosures of Acciai, Pacetti, McCoy, and Kranz to provide all elements of independent claims 1 and 13, Applicants respectfully request that the rejections of independent claims 1 and 13 be withdrawn.

Accordingly claims 5, 7-8, 11, 12, 14-17, and 19, which depend from nonobvious independent claims 1 and 13 respectively, also are believed to be nonobvious and Applicants respectfully request that the rejections be withdrawn.

Claims 6 and 18 were rejected under 35 U.S.C. 103(a) as being unpatentable over Acciai in view of Pacetti, McCoy, and (AAPA or Kranz) and further in view of Magnante (U.S. Patent No. 6,086,204). After careful review, Applicant must respectfully traverse this rejection.

As discussed above in detail, Acciai in view of Pacetti, McCoy, and (AAPA or Kranz), does not appear to provide all elements of pending independent claims 1 and 13. The addition of a granite base of Magnante does not appear to overcome the identified and acknowledged deficiencies of the combined references as applied to nonobvious independent claims 1 and 13. Accordingly, claims 6 and 18, which depend from nonobvious independent claims 1 and 13 respectively, are believed to be nonobvious as well and Applicants respectfully request that the rejections be withdrawn.

In the Response to Arguments, the Examiner does not appear to address a major issue, namely that the proposed combination of references necessarily alters the principle of operation of the primary Acciai reference to which the modifications are to be applied. The apparatus of Acciai does not appear to remove material from the stent being operated upon, but instead photochemically alters the solubility of a coating which is present on the stent and does so by simultaneous exposure of a photoresist on the inner and outer surfaces of the stent in a manner which employs two opposing beams thereby ensuring that the two exposures are aligned. Any material to be removed appears to be removed not by the laser, but in subsequent processing described at col. 3, lines 18-50 in separate apparatus which develops, etches, and deburrs.

With respect to the introduction of water into the system of Acciai, a similar lack

of motivation applies. It should be noted that the photoresist exposure system of Acciai does not appear to generate debris which might motivate one of ordinary skill in the art to provide a flushing stream of water found in McCoy. The system of McCoy appears to employ water in two ways. The first is an axial flow within the tube to provide cooling and to remove cutting debris and the second is to manipulate the cut tube. There is no motivation to combine Acciai and McCoy for the reason that there is no significant heat and no debris generated in the photoresist exposure system of Acciai and, in the absence of cutting, no cut tube to be manipulated. The introduction of an axial water flow into the photoresist exposure system of Acciai would be expected to alter the optical properties within the tube and so to adversely affect the ability of the system to reliably mirror the external optical system as is desired to ensure alignment of the two beams of Acciai. The fact that each system employs a laser is irrelevant to the lack of motivation to apply McCoy to solve a problem which does not appear to exist in Acciai particularly given the significantly different purposes for which the laser is used and the necessary differences in the optical system which each reference employs to direct the laser energy.

With respect to the question of positioning, the issue appears to be whether one of ordinary skill in the art would be motivated to modify Acciai by turning to the imprecise positioning of Pacetti. Pacetti appears to allow the tube to move longitudinally between barrier members (36) of Figure 5 and to rock laterally as illustrated in the Response of May 7, 2009, a configuration suitable for applying a coating, whereas the apparatus of Acciai requires significantly higher precision in three axes. Precision positioning does not need to be a claim element if one of ordinary skill in the art would not look to the reference knowing that to do so would be expected to significantly degrade the positioning capability present in Acciai, said positioning accuracy being required for the proper functioning of Acciai.

In view of the foregoing, all pending claims are believed to be in a condition for allowance. Reconsideration and withdrawal of the rejections is respectfully requested. Issuance of a Notice of Allowance in due course is anticipated. If a telephone conference might be of assistance, please contact the undersigned attorney at (612) 677-9050.

Respectfully submitted,

Date:

Sept. 23, 2009



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